



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:)
)
Matthew M. Morrison et al.)
)
Serial No. 09/941,056)
)
Filed August 28, 1999)
)
MULTI-AXIAL BONE ANCHOR)
SYSTEM)
October 12, 2001

Before the Examiner
(not yet assigned)

Group Art Unit 3732

October 12, 2001

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on

12 October 2001

Date of Deposit

Christopher A. Brown

Name of Registered Representative

Christopher A. Brown

Signature

12 October 2001

Date of Signature

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please consider the following. The filing fee originally remitted was sufficient to cover three independent claims and 34 total claims. By the present amendment, the application now includes 34 claims, of which 7 are independent. Accordingly, enclosed is a check in the amount of \$336.00 in payment of the fees for four additional independent claims. If any further fees are deemed to be due, please charge them to Deposit Account No. 23-3030, but not to include any payment of issue fees.

Adjustment date: 11/21/2001 NROCHA1
10/18/2001 AWONDAF1 00000101 09941056
01 FC:102 -336.00 DP

10/18/2001 AWONDAF1 00000101 09941056

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336.00 DP

IN THE SPECIFICATION

Please add the following as the first paragraph on page 1 of this application:

This application is a continuation of U.S. Application Serial No. 09/526,189, now U.S. Patent No. 6,280,445, which claimed the benefit of U.S. Provisional Application Serial Nos. 60/149,774 and 60/129,587, and this application claims the benefits thereof under 35 U.S.C. 119(e) and 120.

Repln. Ref: 11/21/2001 NROCHA1 0011394700
DAH:233030 Name/Number:09941056
FC: 704 \$336.00 CR

PRELIMINARY AMENDMENT

Serial No. 09/941,056

Docket No. 4002-2817

Page 1 of 11

IN THE CLAIMS

Please cancel claims 1-34, without prejudice to further consideration in this or a continuing application.

Please add the following new claims:

35. An orthopedic implant, comprising:

a base member having a lower surface, an upper surface, and at least one aperture;

a stabilizer having an opening, said stabilizer being adjacent said base member in one of an infinite number of positions wherein said opening communicates with one of said apertures of said base member;

a fixation member having a first portion for attachment to a bone, a second threaded portion, and an intermediate diametrically enlarged portion, said fixation member extending through said stabilizer and said base member so that said enlarged portion contacts said stabilizer;

a washer having a rounded top, said washer being around said second threaded part of said fixation member; and

a nut threaded onto said second threaded part of said fixation member, whereby said fixation member, said stabilizer and said base member can be locked relative to each other.

36. The implant of claim 35, further comprising at least one additional stabilizer each having an opening therethrough, said at least one additional stabilizer further having at least one lateral finger abutting said base member, wherein said at least one additional stabilizer is in one of an infinite number of positions such that said opening of said at least one additional stabilizer communicates with an aperture of said longitudinal member.

37. The implant of claim 36, further comprising at least one additional fixation member each having a first portion for fixing to a bone, a second threaded portion, and an intermediate diametrically enlarged portion, said at least one additional fixation member extending through a corresponding one of said at least one additional stabilizers and said longitudinal member so that said enlarged portion contacts a portion of said corresponding stabilizer.

38. The implant of claim 35, wherein said nut includes a break-off portion that is severed when a torque exceeding a predetermined amount is applied to said break-off portion.

39. The implant of claim 35, wherein at least a portion of said stabilizer is between said upper and lower surfaces of said base member.

40. A spinal implant system, comprising:

a base member having a longitudinal axis, a first end and a second end, said first end having a first slot and a second slot, said second end having a first aperture and a second aperture;

a stabilizer having an opening, said stabilizer being adjacent said base member such that at least a portion of said stabilizer is between said upper and lower surfaces of said base member in one of an infinite number of positions wherein said opening communicates with said first slot;

a fixation member having a first portion for connection with a bone, a second threaded portion, and an enlarged intermediate head portion, said fixation member extending through said opening of said stabilizer and said first slot;

a washer having a body portion, a hole therethrough, and a flange portion extending laterally from said body portion, said flange portion including a C-clip, said washer being adapted for placement around said fixation member so that said C-clip extends above a portion of said second slot; and

a nut threaded on said second threaded portion of said fixation member, whereby said base member, stabilizer, fixation member, washer and nut are locked with respect to each other.

41. The system of claim 40, further comprising a screw having a threaded portion and a head portion, said threaded portion extending through said second slot and into a bone and said head portion being adjacent said C-clip.

42. The system of claim 41, wherein said head portion has a lower convex portion, an upper portion, and a substantially cylindrical portion between said upper and lower portions.

43. The system of claim 41, wherein said C-clip has an inner diameter smaller than the largest diameter of said head portion of said screw.

44. The system of claim 40, wherein said enlarged portion of said fixation member overlaps with one of said threaded portions.

45. The system of claim 44, wherein said first threaded portion of said fixation member has a head surface and a root diameter that increases toward said enlarged head portion so that said head surface is substantially a continuation of said root diameter.

46. The system of claim 40, wherein said flange portion of said washer is non-parallel with said substantially flat lower surface.

47. The system of claim 46, wherein said flange portion of said washer forms an obtuse angle with said substantially flat lower surface.

48. The system of claim 40, further comprising
a second fixation member having a first portion for connection with a bone, a second threaded portion, and an enlarged intermediate head portion, said second fixation member extending through said first aperture and into a bone,
a second washer having a body portion and a flange portion extending laterally from said body portion, said flange portion including a C-clip, said washer being adapted for placement around said second fixation member so that said C-clip extends above a portion of said second aperture, and
a second nut threaded on said second threaded portion of said second fixation member, whereby said plate member, second fixation member, second washer and second nut are locked in with respect to each other.

49. The system of claim 48, further comprising a second screw having a threaded portion and a head portion, said threaded portion of said second screw extending through said second aperture and into a bone, and said head portion of said second screw being adjacent said flange portion of said second washer.

50. The system of claim 40, wherein said base member is non-planar.

51. The system of claim 50, wherein said base member has two substantially planar portions forming an angle between them.

52. A method, comprising:

inserting at least one bone fixation member into a bone;

providing a base member having at least one slot therein and a stabilizer having an aperture;

placing said base member and said stabilizer over said bone fixation member so that said fixation member extends through said stabilizer and said base member;

orienting said base member with respect to said fixation member to a desired relative position;

placing a washer over said fixation member;

threading a nut onto said fixation member, and tightening said nut whereby said base member and said fixation member are locked with respect to each other.

53. The method of claim 52 wherein said orienting step occurs after threading said nut onto said fixation member but prior to tightening said nut.

54. A method, comprising:

inserting at least one bone fixation member into bone tissue;

providing a base member having a plurality of openings therein and a stabilizer having an aperture;

placing said base member and said stabilizer over said at least one bone fixation member so that said at least one fixation member extends through said stabilizer and said base member;

placing a washer having a lateral flange portion forming an expandable aperture over said fixation member so that said flange portion overlaps at least a portion of one of said openings in said base member;

inserting a screw into a bone through said flange portion of said washer and said portion of one of said openings in said base member and into bone tissue; and

threading a nut onto said fixation member, and tightening said nut whereby said base member and said fixation member are locked with respect to each other.

55. An apparatus, comprising:

a connector having a C-shaped portion and an extension portion, said C-shaped portion having an opening adapted to accommodate an elongated member, said extension portion having a lower surface, an upper surface, and at least one aperture;

a stabilizer having an opening, said stabilizer being adjacent said base member such that at least a portion of said stabilizer is between said upper and lower surfaces of said base member in one of an infinite number of positions wherein said opening communicates with one of said apertures of said base member;

a fixation member having a first portion for attachment to a bone, a second threaded portion, and an intermediate diametrically enlarged portion, said fixation member extending

through said stabilizer and said base member so that said enlarged portion contacts said stabilizer;

a washer having a rounded top, said washer being around said second threaded part of said fixation member; and

a nut threaded onto said second threaded part of said fixation member, whereby said fixation member, said stabilizer and said base member can be locked relative to each other.

56. The apparatus of claim 55, wherein said C-shaped portion includes a threaded aperture, and further comprising a set screw adapted to be threaded into said threaded aperture, whereby an elongated member can be fixed within said C-shaped portion.

57. The apparatus of claim 55, wherein said C-shaped portion and said extension portion lie substantially in the same plane.

58. The apparatus of claim 57, wherein the plane of said C-shaped portion and said extension portion is substantially perpendicular to the opening of said C-shaped portion.

59. An apparatus, comprising:

a washer for use with an orthopedic fixation device, said washer including a body portion having a rounded top, a flat bottom, and an aperture from said top to said bottom, said washer further including a flange portion extending laterally from said body portion.

60. The apparatus of claim 59, wherein said aperture has an axis, and said flange portion is not perpendicular to said axis.

61. The apparatus of claim 59, wherein said flange portion includes an expandable aperture.

62. The apparatus of claim 61, wherein said expandable aperture is formed by a C-clip.

63. An apparatus, comprising:
a stabilizer for use with an orthopedic fixation device, said stabilizer having a substantially flat top, a bottom, and an aperture from said top to said bottom, said aperture bounded by a wall at least partially conical.

64. The apparatus of claim 63, wherein said aperture has an axis, and said stabilizer further includes at least one finger portion extending laterally with respect to said axis.

65. The apparatus of claim 63, wherein said bottom is substantially planar.

66. The apparatus of claim 63, wherein said bottom is rounded.

67. The apparatus of claim 66, wherein said bottom has a convex portion.

68. The apparatus of claim 63, wherein said stabilizer includes at least a portion adapted to be within the orthopedic fixation device.

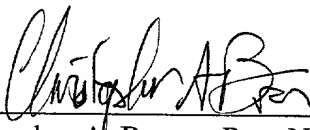
REMARKS

Entry of the present preliminary amendment is respectfully requested. As noted above, claims 1-34 as originally filed have been cancelled without prejudice, and new claims 35-67 have been presented. This amendment is being made following the allowance of parent application Serial No. 09/526,189 (now U.S. Patent No. 6,280,445) to define additional protectable subject matter. This amendment is not being offered to distinguish over prior art.

Further, the specification has been amended to add a paragraph specifically reciting and claiming benefit to prior U.S. utility and provisional patent applications. Applicant wishes to insure that the benefit of the applications noted in that new paragraph is claimed. No new matter has been included.

Accordingly, it is respectfully requested that these new claims 35-67 be examined and passed to allowance. The Examiner is invited to telephone the undersigned attorney at the number below if there are any questions concerning this application or amendment.

Respectfully submitted,

By 
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

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